WHAT IS CLAIMED IS:

1	1. A method of dynamically shortening error correction							
2	codewords in an error correction code interleaving arrangement that divides error							
3	correction codewords into segments for recording across a codeword matrix, the							
4	method comprising:							
5	receiving user data for recording on a storage medium;							
6	determining the size of the received user data and the amount of							
7	matrix that will be filled by the received user data; and							
8	recording error correction codewords segments in an interleave							
9	dynamically created to correspond only to the portion of the matrix filled by the user							
10	data.							
1	2. The method of claim 1 wherein the user data is partitioned for							
2	recording onto the recording medium in a plurality of tracks, and each segment of							
3	a codeword is recorded on a separate track.							
1	3. The method of claim 1 wherein the matrix includes a							
2	predetermined number of partitions each dimensioned to hold a predetermined							
3	number of bytes of user data, and determining the amount of matrix that will be							
4	filled comprises determining the number of partitions filled by the user data.							
1	4. The method of claim 3 wherein if the user data does not fill							
2	all the partitions, shortening the codewords to provide an interleave of codeword							
3	segments corresponding to the number of partitions filed by the user data.							
1	5. The method of claim 1 further comprising:							
2	reading the data from the storage medium;							
3	determining that the data only fills a portion of the matrix; and							
4	automatically recreating the error correction codewords as a function							
5	of the dynamically created interleave recorded on the medium.							

1	6.	Th	e metho	d of	claim 5 wher	ein reading	the da	ta from the
2	storage medium cor	npris	es deter	miniı	ng the shorten	ing value o	f error	codewords
3	corresponding the partial data fill.							
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1	7.	Α	system	for	dynamically	shortening	error	correction

codewords used in an error correction code interleaving comprising:

a data buffer for receiving user data, the data buffer including a processing arrangement for determining the amount of data received in the data

5 buffer;

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an error correction code write buffer connected to the data buffer for receiving the user data as well as an indication of the amount of data, the write buffer including a processing arrangement for determining a shortening value for error correction codewords that correspond to the amount of user data, and recording the user data and error correction codewords on a recording medium.

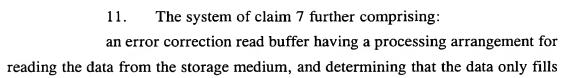
- 8. The system of claim 7 wherein the write buffer processing arrangement is further arranged to divide each of the determined number of error correction codewords into a plurality of segments, and each segment is recorded on a different track.
- 9. The system of claim 7 wherein the write buffer processing arrangement is further arranged to process the user data into a predetermined number of partitions each dimensioned to hold a predetermined number of bytes of user data, and only partitions corresponding to the amount of user data are filled.
- 10. The system of claim 7 wherein the write buffer processing arrangement is further arranged to determine an amount of an error correction codeword matrix that will be filled by the received user data, the shortening size of the error correction codewords is determined to correspond only to the portion of the matrix filled by the user data.

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a portion of an error correction codeword matrix, wherein the read buffer processing arrangement automatically determines the shortening value of the error

6 correction codewords corresponding the partial data fill.